# GOVERNMENT OF INDIA
# SPACE
# LOK SABHA

UNSTARRED QUESTION NO:339
ANSWERED ON:07.07.2004
SOLAR FLARES
Thakkar Smt. Jayaben B.

**Will the Minister of SPACE be pleased to state:**

(a) whether the Government is aware of the fact that one of the largest solar flares ever seen on the Sun is taking place;

(b) if so, whether a blast of material called a coronal mass ejection is hurtling directly towards our planet;

(c) if so, whether any study has been carried out in this regard; and

(d) if so, the details thereof?

## Answer

MINISTER OF STATE IN THE PRIME MINISTER`S OFFICE (SHRI PRITHVIRAJ CHAVAN):

(a) Yes, Sir. One of the largest/powerful solar flares occurred on October 28, 2003 from 15:33 IST. to 17:00 IST.

(b) A large CME (Coronal Mass Ejection) event associated with the above flare came earthwards with an initial speed of about 1800 km/s and reached earth after about 17 hrs. There is no report of any danger to humans on earth as the CME only consists of energetic charged particles which are shielded by earth`s magnetic field.

(c) Yes, Sir.

(d) This flare was recorded at the Udaipur Solar Observatory as part of its daily flare monitoring programme. This CME produced a major geomagnetic storm on October 29, 2003 which is being studied. Scientists around the world are studying the causes of such solar eruptions and its effects on the earth`s magnetosphere and ionosphere. Department of Space has funded special projects at Udaipur Solar Observatory for measurement of solar magnetic fields that can provide vital information on such eruptions.